



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 12, 2007

PTAS
WHITEHORN, CURTIS, CHRISTOFFERSON & COOK
11491 SUNSET HILLS ROAD, SUITE 340
RESTON, VA 20190

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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF
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AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE
INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA
PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD
FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY
CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350.
PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE,
MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 02/12/2007

REEL/FRAME: 018880/0501
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 01640439AA

ASSIGNOR:

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

ASSIGNEE:

VIRGINIA TECH INTELLECTUAL PROPERTIES, INC.
2200 KRAFT DRIVE
SUITE 1050
BLACKSBURG, VIRGINIA 24060

SERIAL NUMBER: 10595654

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS
FOR PROTON EXCHANGE MEMBRANE

COPY

O:WHITHAM, CURTIS, CHRISTOFFERSON & COOK COMPANY:11491 SUNSET HILLS ROAD, SU

018880/0501 PAGE 2

ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

COPY

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.102/12/2007
500222057

| | |
|------------------|----------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT |
|------------------|----------------|

| | |
|-----------------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |
|-----------------------|------------|

CONVEYING PARTY DATA

| Name | Execution Date |
|---|----------------|
| Virginia Polytechnic Institute and State University | 01/25/2007 |

RECEIVING PARTY DATA

| | |
|-------------------|---|
| Name: | Virginia Tech Intellectual Properties, Inc. |
| Street Address: | 2200 Kraft Drive |
| Internal Address: | Suite 1050 |
| City: | Blacksburg |
| State/Country: | VIRGINIA |
| Postal Code: | 24060 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 10585854 |

CORRESPONDENCE DATA

Fax Number: (703)787-7557

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703)787-8400

Email: linda@wcc-ip.com

Correspondent Name: Whitham, Curtis, Christofferson & Cook

Address Line 1: 11491 Sunset Hills Road, Suite 340

Address Line 4: Reston, VIRGINIA 20190

| | |
|-------------------------|------------|
| ATTORNEY DOCKET NUMBER: | 01640439AA |
|-------------------------|------------|

| | |
|--------------------|--------------------|
| NAME OF SUBMITTER: | Michael E. Whitham |
|--------------------|--------------------|

Total Attachments: 2

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CH \$40.00 10585854

COPY

ASSIGNMENT

WHEREAS, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNOR), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is the owner of the entire right, title and interest in and to application for United States Letters Patent, filed on May 2, 2006 as Application Serial No: 10/595,654, in the names of James McGrath, William Harrison and Hossein Ghassemi for Multiblock Copolymers Containing Hydrophilic-Hydrophobic Segments for Proton Exchange Membrane and of the invention therein described; and

WHEREAS, Virginia Tech Intellectual Properties, Inc. (hereinafter referred to as ASSIGNEE), a non-stock corporation organized under the laws of the Commonwealth of Virginia and having a principal place of business at 2200 Kraft Drive, Suite 1050, Blacksburg, Virginia, 24060, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

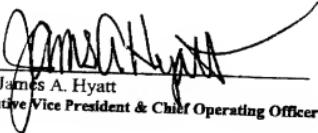
ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

COPY

VTIP 03.135
Serial Number: 10/595,654

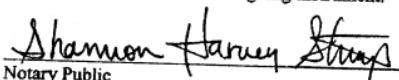
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY


By: James A. Hyatt
Executive Vice President & Chief Operating Officer

Date 1/26/2007

State of Virginia
County of Montgomery

On January 25, 2007, I do hereby certify that James A. Hyatt
personally appeared and acknowledged the due execution of the foregoing instrument.


Shannon Harvey Stamps
Notary Public

My Commission Expires: 8-31-2010

COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

**UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE**

FEBRUARY 12, 2007

PTAS
WHITHAM, CURTIS, CHRISTOFFERSON & COOK
11491 SUNSET HILLS ROAD, SUITE 340
RESTON, VA 20190

500222048A

* 5002220484*

UNITED STATES PATENT AND TRADEMARK OFFICE
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RECORDATION DATE: 02/12/2007

REEL/FRAME: 018880/0371
NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 01640439A

ASSIGNOR: MCGRATH, JAMES F.

ASSIGNOR: HARRISON, MICHAEL J.

ASSIGNOR: John C. H. Smith DATED: 10/27/2008

SEE DATE: 10/30/2006

ASSIGNEE:
VIRGINIA POLYTECHNIC INSTITUTE
STATE UNIVERSITY
301 BURRUSS HALL
BLACKSBURG, VIRGINIA 24061

P.O. Box 1450, Alexandria, Virginia 22312-1450

COPY

018880/0371 PAGE 2

SERIAL NUMBER: 10595654

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS
FOR PROTON EXCHANGE MEMBRANE

MARY BENTON, EXAMINER
ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

COPY

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.102/12/2007
500222048

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | | | | | | | |
|--|---|--|-------|---|------------------|-----------------|---------------------|------------|------------------|------------|--|---------------|----------|--|--------------|-------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>James E. McGrath</td> <td>11/27/2006</td> </tr> <tr> <td>William L. Harrison</td> <td>10/27/2006</td> </tr> <tr> <td>Hossein Ghassemi</td> <td>10/30/2006</td> </tr> </tbody> </table> | | | Name | Execution Date | James E. McGrath | 11/27/2006 | William L. Harrison | 10/27/2006 | Hossein Ghassemi | 10/30/2006 | | | | | | | |
| Name | Execution Date | | | | | | | | | | | | | | | | |
| James E. McGrath | 11/27/2006 | | | | | | | | | | | | | | | | |
| William L. Harrison | 10/27/2006 | | | | | | | | | | | | | | | | |
| Hossein Ghassemi | 10/30/2006 | | | | | | | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td colspan="2">Virginia Polytechnic Institute and State University</td> </tr> <tr> <td>Street Address:</td> <td colspan="2">301 Burness Hall</td> </tr> <tr> <td>City:</td> <td colspan="2">Blacksburg</td> </tr> <tr> <td>State/County:</td> <td colspan="2">VIRGINIA</td> </tr> <tr> <td>Postal Code:</td> <td colspan="2">24061</td> </tr> </table> | | | Name: | Virginia Polytechnic Institute and State University | | Street Address: | 301 Burness Hall | | City: | Blacksburg | | State/County: | VIRGINIA | | Postal Code: | 24061 | |
| Name: | Virginia Polytechnic Institute and State University | | | | | | | | | | | | | | | | |
| Street Address: | 301 Burness Hall | | | | | | | | | | | | | | | | |
| City: | Blacksburg | | | | | | | | | | | | | | | | |
| State/County: | VIRGINIA | | | | | | | | | | | | | | | | |
| Postal Code: | 24061 | | | | | | | | | | | | | | | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 10595654 |

CORRESPONDENCE DATA

Fax Number: (703)787-7557

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703)787-9400

Email: linda@wcc-ip.com

Correspondent Name: Whitham, Curtis, Christofferson & Cook

Address Line 1: 11491 Sunset Hills Road, Suite 340

Address Line 4: Reston, VIRGINIA 20190

10595654

CH \$40.00

| | |
|-------------------------|--------------------|
| ATTORNEY DOCKET NUMBER: | 01640439AA |
| NAME OF SUBMITTER: | Michael E. Whitham |

Total Attachments: 4

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O: WHITHAM, CURTIS, CHRISTOF RSON & COOK COMPANY: 11491 JNSET HILLS ROAD, SU

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COPY

ASSIGNMENT

WHEREAS, I/we, the below-named inventor(s) (hereinafter referred to as ASSIGNS) whose residence address is stated below, have invented certain new and useful improvements in an invention entitled:

Multiblock Copolymers Containing Hydrophilic-Hydrophobic Segments for Proton Exchange Membrane

for which an application for United States Letters Patent Serial No. 10/595,654 has been filed on May 2, 2006; and

WHEREAS, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNEE), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

NOW, THEREFORE, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged; ASSIGNS hereby sell, assign and transfer to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications claiming the benefit of said application to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

COPY

VTIP 03.135

Serial Number: 10/595,654

Full name of inventor: James E. McGrath
Residence: 902 Elliott Drive, Blacksburg, Virginia 24060

Signature: James E. McGrath Date: 11/11/01

State of Virginia
County of Montgomery

On November 27, 2006 I do hereby certify that James E. McGrath
personally appeared and acknowledged the due execution of the foregoing instrument.

Debra S. Lucas
Notary Public

My Commission Expires: December 31, 2007

Full name of inventor: William L. Harrison
Residence: 1735 Tuckahoe Drive, Riner, Virginia 24149

Signature: _____ Date: _____

State of _____
County of _____

On _____, 2006 I do hereby certify that _____
personally appeared and acknowledged the due execution of the foregoing instrument.

Notary Public _____

My Commission Expires: _____

COPY

VTIP 03.135

Serial Number: 10/595,654

Full name of inventor: James E. McGrath
Residence: 902 Elliott Drive, Blacksburg, Virginia 24060

Signature: _____ Date: _____

State of _____
County of _____

On _____, 2006 I do hereby certify that _____
personally appeared and acknowledged the due execution of the foregoing instrument.

Notary Public

My Commission Expires: _____

Full name of inventor: William L. Harrison
Residence: 1735 Tuckahoe Drive, Riner, Virginia 24149

Signature: W.L.H. Date: 10/27/06

State of Virginia
County of J. Montgomery

On October 27th, 2006 I do hereby certify that William Harrison
personally appeared and acknowledged the due execution of the foregoing instrument.

Amelia E. Tuckwiller
Notary Public

My Commission Expires: July 31, 2009

COPY

VTIP 03.135
Serial Number: 10/595,654

Full name of inventor: Hossein Ghassemi
Residence: 326 Royal Oak Blvd., Richmond Heights, Ohio 44143

Signature: H. Ghassemi Date: 10/30/2006

State of OHIO
County of Cuyahoga

On October 30, 2006 I do hereby certify that Hossein Ghassemi
personally appeared and acknowledged the due execution of the foregoing instrument.

Rochelle B. Stephens
Notary Public

My Commission Expires: October 20, 2007

ROCHELLE B. STEPHENS
Notary Public, State of Ohio, Cuy. City,
My commission expires Oct. 20, 2007

COPY